



The Planetary Data System and “PDS Challenge” Activity

PDS Management

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Past NTL interactions

- “PDS Challenge” status as of 2014
 - NASA Tournament Lab(NASA/Harvard/TopCoder) teamed with PSD to implement as NTL action
 - Created series of contests supported by NTL via NASA Advanced Exploration Systems (Jason/Carol)
 - Used a restricted sample of SBN (comet Halley) data on excess server – start 2012 and presented at Oct DPS
 - Resolved errors on SBN site with updated API (2014)
 - Poster/presentation at Oct 2013 DPS including next step to form Cassini contests – Rings Challenge

PDS Challenge - Rings

Goal – “Rings Challenge” complete by June 30

NTL Teams to search Cassini ISS data for disruptions – citizen science – crowd sourcing.

Access data through Rings enhanced indices and use machine learning to spot anomalies

Set up contests/create test scenarios (> Oct)

Proposal and new tech lead (Ashley Thomas) with time line and responsibility matrix accepted

TopCoder acquired by Appirio, some changes

Ed and Tom attend TopCoder Summit, Nov 2013

Rings Challenge Steps

Revised API mod at Rings– winner SBN co-pilot

Original contests with Rings indices to search Cassini ISS data; ends as Marathon Match

Revision to contests (MS white paper) in 2014

Remove steps to install SPICE and python

Appirio re-assignment of PDS PM (Ashley)

Andy returns as Liaison; IDs PM Jennifer Odess

PM meets with SBN (Anne) and HQ (Bill/Ed)

Re-organize contests – late spring 2014 target

Current Rings Challenge

- Restart with 6 contests week of April 07
- Target date of mid-June for Marathon Match
- Weekly telecons on early contests (\$3-5K)
- A TC participant is Brian Carcich (Cornell)
- Image application and Rings subtraction
- Streamlined processes to use Rings data
- Find the Ring-Dings (Marathon Match \$15K)
- Productize feature extractor and preparation
- Announce winners at the Cassini celebration

PDS Challenge Initial Steps

Goal – Node input; universal access; PDS4 ?

1. Identify ideas and interest (Dec 2013);
2. About 10 ideas (three different nodes);
3. Assembled list sent to Kristen/Carol NTL;
4. Delay planning till after Cassini ISS project ;
5. Previous HQ support to participating Nodes
 - buy low end server or alternative
 - acquire needed storage space

PDS Challenge Next steps

3. NTL proposes survey to those nodes interested with requirement questions (on volume, type of data, database, file system on remote URL, adherence to PDS3, POC);
4. Allow NTL to review your feedback and work with TC/Appirio to recommend level of challenge support;
5. Work with TC/Appirio to develop an NTL cost estimate after April 21 NTL meeting.